

## REMARKS

### **Restriction Requirement under 35 U.S.C. § 121**

The United States Patent and Trademark Office issued a restriction requirement dated June 16, 2003. The Examiner requires that an election be made for a single combination of one "antigenic domain" (i.e. HIV-1 gp160, tumor antigen, bacterial antigen) and one "receptor binding domain" (i.e. CD40-binding, CD154, single chain Fv, CD80-binding, CD86-binding).

Applicants respectfully disagree with the Examiner's characterization of "antigenic domain" and "receptor binding domain". However, in response to the restriction requirement, Applicants elect with traverse to pursue HIV-1 gp160 or a portion of HIV-1 gp160 (see claim 6) for the group termed in the Office Action "antigenic domain" in combination with "CD-40 binding" for the group termed in the Office Action "receptor binding domain". Applicants are submitting herewith an amendment to add new claims that are within the scope of this elected combination.

Applicants reserve the right to consideration of a reasonable number of disclosed species as provided by 37 CFR § 1.141 should a generic claim eventually be allowed.

The application was originally filed on October 13, 2000, with claims 1-14. In this amendment Applicants have canceled claims 1-14 without prejudice, and added new claims 15-33. Claims 15-33 are therefore pending. Applicants reserve the right to pursue canceled claims 1-14 in this application or a related application at a latter date. The canceled claims have not been substantively reviewed for patentability by the United States Patent and Trademark Office and the cancellation of these claims is not related to the patentability of these claims. The amendments to the claims and addition of new claims have been made without the addition of new matter, full support for which can be found in the specification, including the claims and drawings as originally filed. Entry of this amendment is respectfully requested.

**AMENDMENT****In the Claims:**

Please cancel claims 1-14 without prejudice, and add the following new claims:

15. (New) A composition comprising an antigenic polypeptide or a polynucleotide encoding an antigenic polypeptide, said antigenic polypeptide comprising an antigen domain and a receptor-binding domain, said antigen domain comprising HIV-1 gp160 or a portion thereof and said receptor-binding domain comprising a CD40-binding polypeptide.
16. (New) A composition of claim 15, wherein said receptor-binding domain comprises at least a portion of an immunoglobulin.
17. (New) A composition of claim 15, wherein said receptor-binding domain comprises a single chain Fv.
18. (New) A composition of claim 15, wherein said CD-40 binding protein comprises CD154 or a portion of CD154.
19. (New) A composition of claim 15, wherein said antigenic polypeptide comprises an amino acid sequence according to any one of SEQ ID NO: 20, 21, 22, 23, 24, 25, 26, or 27.
20. (New) A composition of claim 15, wherein said CD40-binding polypeptide comprises a camelid immunoglobulin variable region.
21. (New) A composition of claim 15, wherein said receptor-binding domain is capable of binding CD40 and one or more additional receptors.
22. (New) A composition according to claim 15, wherein said composition comprises said antigenic polypeptide and not a polynucleotide encoding said antigenic polypeptide.

23. (New) A composition of claim 15, wherein said composition comprises said polynucleotide encoding the antigenic polypeptide and not the antigenic polypeptide itself.
24. (New) A composition of claim 23, wherein said polynucleotide comprises a DNA plasmid.
25. (New) A composition of claim 23, wherein said polynucleotide comprises a viral vector.
26. (New) A composition of claim 15 that is capable of eliciting an immune response in an animal.
27. (New) A composition of claim 15 that is capable of eliciting an immune response in an animal.
28. (New) A composition comprising an antigenic polypeptide or a polynucleotide encoding an antigenic polypeptide, said antigenic polypeptide comprising an antigen domain and a receptor-binding domain, said antigen domain comprising HIV-1 gp160 or a portion of HIV-1 gp160, said receptor-binding domain comprising at least a portion of a CD154 polypeptide capable of binding to CD40.
29. (New) A composition of claim 28 comprising a polynucleotide encoding an antigenic polypeptide, said polynucleotide comprising a sequence according to any one of SEQ ID NO: 12, 13, 14, 15, 16, 17, 18, or 19.
30. (New) A composition of claim 28 wherein said antigenic polypeptide comprises an amino acid sequence according to any one of SEQ ID NO: 20, 21, 22, 23, 24, 25, 26, or 27.
31. (New) A polynucleotide encoding an antigenic polypeptide, said antigenic polypeptide comprising an antigen domain and a receptor-binding domain, said antigen domain comprising HIV-1 gp160 or a portion of HIV-1 gp160, said receptor-binding domain comprising a CD40-binding polypeptide.

32. (New) A polynucleotide of claim 23 operably linked to an expression vector.
33. (New) A polynucleotide of claim 29 operably linked to an expression vector.

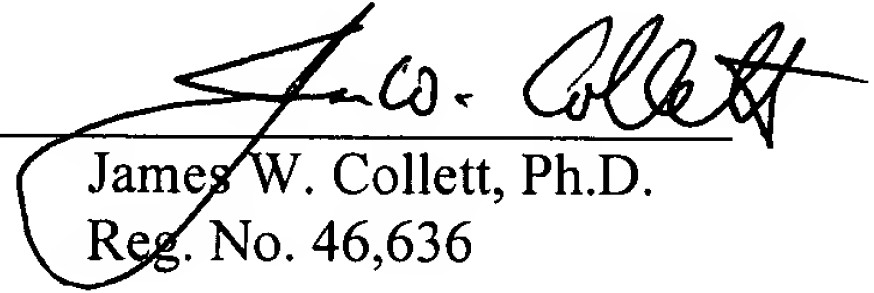
**CONCLUSION**

For the reasons set forth above, Applicants respectfully submit that all remaining claims in the application are now in condition for allowance. The Examiner is encouraged to contact the undersigned if it is believed this would expedite prosecution.

Please charge Deposit Account No. 02-4553 the fee of \$55.00 for a one-month extension of time. No additional fees are believed to be due at this time; however, if any fee should become due or credit become payable during the pendency of these proceedings, the Examiner is authorized to charge or credit the same to Deposit Account No. 02-4553.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES****In the Claims:**

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Canceled)

15. (New) A composition comprising an antigenic polypeptide or a polynucleotide encoding an antigenic polypeptide, said antigenic polypeptide comprising an antigen domain and a receptor-binding domain, said antigen domain comprising HIV-1 gp160 or a portion thereof and said receptor-binding domain comprising a CD40-binding polypeptide.

16. (New) A composition of claim 15, wherein said receptor-binding domain comprises at least a portion of an immunoglobulin.

17. (New) A composition of claim 15, wherein said receptor-binding domain comprises a single chain Fv.

18. (New) A composition of claim 15, wherein said CD-40 binding protein comprises CD154 or a portion of CD154.

19. (New) A composition of claim 15, wherein said antigenic polypeptide comprises an amino acid sequence according to any one of SEQ ID NO: 20, 21, 22, 23, 24, 25, 26, or 27.

20. (New) A composition of claim 15, wherein said CD40-binding polypeptide comprises a camelid immunoglobulin variable region.
21. (New) A composition of claim 15, wherein said receptor-binding domain is capable of binding CD40 and one or more additional receptors.
22. (New) A composition according to claim 15, wherein said composition comprises said antigenic polypeptide and not a polynucleotide encoding said antigenic polypeptide.
23. (New) A composition of claim 15, wherein said composition comprises said polynucleotide encoding the antigenic polypeptide and not the antigenic polypeptide itself.
24. (New) A composition of claim 23, wherein said polynucleotide comprises a DNA plasmid.
25. (New) A composition of claim 23, wherein said polynucleotide comprises a viral vector.
26. (New) A composition of claim 15 that is capable of eliciting an immune response in an animal.
27. (New) A composition of claim 15 that is capable of eliciting an immune response in an animal.
28. (New) A composition comprising an antigenic polypeptide or a polynucleotide encoding an antigenic polypeptide, said antigenic polypeptide comprising an antigen domain and a receptor-binding domain, said antigen domain comprising HIV-1 gp160 or a portion of HIV-1 gp160, said receptor-binding domain comprising at least a portion of a CD154 polypeptide capable of binding to CD40.

29. (New) A composition of claim 28 comprising a polynucleotide encoding an antigenic polypeptide, said polynucleotide comprising a sequence according to any one of SEQ ID NO: 12, 13, 14, 15, 16, 17, 18, or 19.
30. (New) A composition of claim 28 wherein said antigenic polypeptide comprises an amino acid sequence according to any one of SEQ ID NO: 20, 21, 22, 23, 24, 25, 26, or 27.
31. (New) A polynucleotide encoding an antigenic polypeptide, said antigenic polypeptide comprising an antigen domain and a receptor-binding domain, said antigen domain comprising HIV-1 gp160 or a portion of HIV-1 gp160, said receptor-binding domain comprising a CD40-binding polypeptide.
32. (New) A polynucleotide of claim 23 operably linked to an expression vector.
33. (New) A polynucleotide of claim 29 operably linked to an expression vector.